Schneider does not disclose functional groups comprising a member of a binding pair or a reactive moiety and therefore taken together with Good and Fuller does not render claim 7 or claims 2 or 1 from which it depends obvious.

Claims 9-11 are rejected under 35 USC 103 as being unpatentable over Good or Fuller in view of Frechet. The Examiner asserts that it would have been obvious to use the functional group disclosed in Frechet in either Good or Fuller. Frechet discloses a continuous liquid chromatographic column containing a separation medium in the form of a macroporous polymer plug. The porous plugs are made by *in situ* polymerization of mono or polyvinyl monomers in the presence of an initiator and a porogen. After polymerization, the organic polymer plug is washed with a suitable liquid to remove the porogen. According to Frechet, such a chromatograph column is compact and has substantially no interstitial volume. In addition, Col. 7, lines 35-64, indicate that functional groups may be added to the macroporous polymer. Accordingly, Frechet teaches the addition of the functional group to the solid surfaces of a polymeric plug containing "pores." Frechet does not suggest the addition of such functional groups to a polymeric film covering discrete support particles as disclosed in Fuller and Good.

Similarly, Applicant is unaware of any disclosure in Fuller or Good which would suggest that the disclosed polymeric film covering discrete support particles should be modified to add a functional group. Accordingly, Frechet, Fuller and/or Good alone or in combination do not teach or suggest that they should be combined as the Examiner has done.

Further, the porous plug of Frechet is characterized by the absence of inter-particular volumes. See Col. 3, lines 54-56. Fuller and Good, on the other hand, clearly have such inter-particular volumes. Such a difference in structure would indicate that the macroporous polymer plug of Frechet is not interchangeable with the particulate material of Fuller and Good. Thus, the skilled artisan would not be motivated to combine the references.

Since there is no suggestion or motivation to combine the references, the rejection of the claims based on the combination of Good and/or Fuller with Frechet should be withdrawn.

In addition claims 11 and 12 were rejected under 35 USC 103 as set forth for claim 9 and further in view of Larson. Larson discloses that enzymes are desirable functional groups for continuous beds. However, Larson does not cure the deficiencies set forth with the rejections of

claims 9-12. As such, the combination of Larson with the other references of record does not render claims 11 and 12 unpatentable.

Considering the foregoing, it is submitted that the claims are patentable over the art of record and that a notice of allowance should promptly issue.

The Assistant Commissioner is hereby authorized to charge any additional fees, including extension fees, or credit any overpayment to Deposit Account No. 50-2319 (Our Order No. A-69071/RFT/469190-5).

Respectfully submitted,

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Claims Showing Changes Made

1. (Amended) A matrix comprising solid space and interstitial space wherein said interstitial space [further] comprises an interstitial polymer network comprising a functional group comprising a member of a binding pair.

2. The matrix of claim 1 wherein said solid space comprises solid particles.

3. The matrix of claim 2 wherein said interstitial polymer network is attached to one of said solid particles.

4. The matrix of claim 2 wherein said attachment comprises at least one covalent linkage to said solid particle.

5. The matrix of claim 2 wherein said interstitial polymer network spans at least two of said solid particles.

6. The matrix of claim 2 wherein said interstitial polymer network further comprises a tether molecule.

7. The matrix of claim 2 wherein said solid support further comprises a blocking reagent.

8. The matrix of claim 2 wherein said interstitial polymer network comprises a cross-linked polymer.

Claims 9-11 cancelled.

12. (Amended) The matrix of claim (11) 1 wherein said reactive moiety comprises a chemical catalyst, an enzyme or a chemical reagent.

Claims 13-25 cancelled.

26. (New) A matrix comprising solid space and interstitial space wherein said interstitial space comprises an interstitial polymer network comprising a functional group comprising a reactive moiety.

PENDING CLAIMS

1. A matrix comprising solid space and interstitial space wherein said interstitial space comprises an interstitial polymer network comprising a functional group comprising a member of a binding pair.

2. The matrix of claim 1 wherein said solid space comprises solid particles.

3. The matrix of claim 2 wherein said interstitial polymer network is attached to one of said solid particles.

4. The matrix of claim 2 wherein said attachment comprises at least one covalent linkage to said solid particle.

5. The matrix of claim 2 wherein said interstitial polymer network spans at least two of said solid particles.

6. The matrix of claim 2 wherein said interstitial polymer network further comprises a tether molecule.

7. The matrix of claim 2 wherein said solid support further comprises a blocking reagent.

8. The matrix of claim 2 wherein said interstitial polymer network comprises a cross-linked polymer.

12. The matrix of claim 1 wherein said reactive moiety comprises a chemical catalyst, an enzyme or a chemical reagent.

26. A matrix comprising solid space and interstitial space wherein said interstitial space comprises an interstitial polymer network comprising a functional group comprising a reactive moiety.